Pergamon

Solar Energy, Vol. 52, No. 6, pp. III–IX, 1994
Copyright © 1994 Elsevier Science Ltd
Printed in the USA. All rights reserved
0038-092X/94 $6.00 + .00

LIST OF CONTENTS

VOLUME 52, NUMBER 1, 1994

Special Issue: Solar Buildings

A. G. Hestnes and **J. O. Lewis** (*Norway/Ireland*) — 1 *Guest editorial*

Articles

E. Bilgen (*Canada*) — 3 Experimental study of thermal performance of automated venetian blind window systems

Ph. Andre, J. Nicolas, J. F. Rivez, and **V. Debbaut** (*Belgium*) — 9 Analysis methodology, experimental investigation, and computer optimization of a passive solar commercial building in the Belgian climate

A. Yezioro and **E. Shaviv** (*Israel*) — 27 Shading: A design tool for analyzing mutual shading between buildings

I. Meroni, F. Scamoni, C. Vancini, and **F. Munafo** (*Italy*) — 39 Comparison study of two different testing methodologies used to characterize an opaque solar component

S. N. G. Lo, C. R. Deal, and **B. Norton** (*Northern Ireland/England*) — 49 A school building reclad with thermosyphoning air panels

M. Santamouris, A. Argiriou, E. Dascalaki, C. Balaras, and **A. Gaglia** (*Greece*) — 59 Energy characteristics and savings potential in office buildings

P. D. Lund (*Finland*) — 67 The energy storage problem in low energy buildings

R. Ashley and **J. S. Reynolds** (*U.S.A.*) — 75 Overall and zonal energy end use in an energy conscious office building

J. W. Twidell, C. Johnstone, B. Zuhdy, and **A. Scott** (*U.K./Scotland*) — 85 Strathclyde University's passive solar, low-energy, residences with transparent insulation

W. Stahl, K. Voss, and **A. Goetzberger** (*Germany*) — 111 The self-sufficient solar house in Freiburg

K.Kuhnke and **G. Hammer** (*Germany*) — 127 Directional selective transmission with cylindrical lenses

137 *Recommended Nomenclature*

139 *Announcement*

VOLUME 52, NUMBER 2, 1994

J. A. Duffie (*U.S.A.*) — 141 *A welcome to Professor K. G. T. Hollands, our new editor*

Articles

A. Hasan (*Israel*) 143 Phase change material energy storage system employing palmitic acid

A. Meaburn and **F. M. Hughes** (*U.K.*) 155 Prescheduled adaptive control scheme for resonance cancellation of a distributed solar collector field

R. E. Hogan, Jr. (*U.S.A.*) 167 AEETES—A solar reflux receiver thermal performance numerical model

M. M. Farid and **A. N. Khalaf** (*Jordan/Iraq*) 179 Performance of direct contact latent heat storage units with two hydrated salts

W. B. Lawrence and **B. Wichert** (*Australia*) 191 A versatile PV module simulation model based on PSI/*e*

D. Peramunage and **S. Licht** (*U.S.A.*) 197 Ligand, cation and speciation effects on n-CdSe/($[KFe(CN)_6]^{3-/2-}$) photoelectrochemistry

J. J. Michalsky, R. Perez, R. Seals, and **P. Ineichen** (*U.S.A./Switzerland*) 205 Degradation of solar concentrator performance in the aftermath of Mount Pinatubo

F. Loxsom and **P. Durongkaveroj** (*U.S.A./Thailand*) 215 Estimating the performance of a photovoltaic pumping system

G. De Beni, R. Friesen, and **M. Olmo** (*Italy*) 221 Utilization of solar thermal energy in mountain refuges through an innovative system

225 *Announcement*
ISES conference information/*Solar Energy* upcoming issues

VOLUME 52, NUMBER 3, 1994

Articles

A. Soler (*Spain*) 227 Dependence on wavelength of the diurnal variation of the monthly mean hourly values of global radiation on horizontal surfaces

A. Soler and **K. K. Gopinathan** (*Spain*) 233 Estimation of monthly mean hourly global radiation for latitudes in the 1°N–81°N range

T. Takashima, T. Tanaka, T. Doi, J. Kamoshida, T. Tani, and **T. Horigome** (*Japan*) 241 New proposal for photovoltaic-thermal solar energy utilization method

M. A. C. Chendo and **A. A. L. Maduekwe** (*Nigeria*) 247 Hourly global and diffuse radiation of Lagos, Nigeria—Correlation with some atmospheric parameters

W. E. Wentworth and **P. J. Chen** (*U.S.A.*) 253 Photocatalytic reaction of 2-propanol over WO_3/SiO_2 using high flux radiation

T. C. Thulasi Das, S. Karmakar and **D. P. Rao** (*India*) 265 Solar box-cooker: Part I—Modeling

T. C. Thulasi Das, S. Karmakar, and **D. P. Rao** (*India*)	273	Solar box-cooker: Part II—Analysis and simulation
N. Z. Muradov (*U.S.A.*)	283	Solar detoxification of nitroglycerine-contaminated water using immobilized titania
G. F. Jones and **N. Lior** (*U.S.A.*)	289	Flow distribution in manifolded solar collectors with negligible buoyancy effects
	301	*Recommended Nomenclature*

VOLUME 52, NUMBER 4, 1994

Articles

J. C. Grenier, A. De La Casinière, and **T. Cabot** (*France*)	303	A spectral model of Linke's turbidity factor and its experimental implications
A. Roos and **B. Karlsson** (*Sweden*)	315	Optical and thermal characterization of multiple glazed windows with low U-values
R. Mavros, V. Belessiotis, and **D. Haralambopoulos** (*Greece*)	327	Stratified energy storage vessels: Characterization of performance and modeling of mixing behavior
P. Ineichen, B. Molineaux, and **R. Perez** (*Switzerland/U.S.A.*)	337	Sky luminance data validation: Comparison of seven models with four data banks
A. Arbel and **M. Sokolov** (*Israel*)	347	Improving load matching characteristics of a thermosyphonic solar system by thermostatically controlled circulation
R. Perez, J. Doty, B. Bailey, and **R. Stewart** (*U.S.A.*)	359	Experimental evaluation of a photovoltaic simulation program

VOLUME 52, NUMBER 5, 1994

Articles

W. W. S. Charters (*Australia*)	367	Solar energy: A viable pathway towards ecologically sustainable development
M. Santamouris, A. Argiriou, and **M. Vallindras** (*Greece*)	371	Design and operation of a low energy consumption passive solar agricultural greenhouse
H. G. Beyer, A. Hammer, J. Luther, J. Poplawska, K. Stolzenburg, and **P. Wieting** (*Germany*)	379	Analysis and synthesis of cloud pattern for radiation field studies
A. Skartveit and **J. A. Olseth** (*Norway*)	391	Luminous efficacy models and their application for calculation of photosynthetically active radiation
J. Samimi (*Iran*)	401	Estimation of height-dependent solar irradiation and application to the solar climate of Iran

J. Wang and **J. Seyed-Yagoobi** (*U.S.A.*) 411 Effects of halobacteria and selected chemicals on radiation transmission in salt water

A. A. Pesaran *and* **K. B. Wipke** (*U.S.A.*) 419 Use of unglazed transpired solar collectors for desiccant cooling

J. Wang *and* **J. Seyed-Yagoobi** (*U.S.A.*) 429 Effects of water turbidity and salt concentration levels on penetration of solar radiation under water

M. A. Elhadidy *and* **S. M. Shaahid** (*Saudi Arabia*) 439 Effect of Kuwait's oil–fire smoke cloud on global horizontal irradiance at Dhahran, Saudi Arabia

K. Tanaka *and* **T. Hisanaga** (*Japan*) 447 Photodegradation of chlorofluorocarbon alternatives on metal oxide

M. Yanadori, M. Hamano, *and* **T. Kawano** (*Japan*) 451 Study on the heat-flow controllable heat exchanger (1st report): Thermal characteristics of heat-flow controllable heat exchanger

Announcement

457 ISES conference information/*Solar Energy* upcoming issues

VOLUME 52, NUMBER 6, 1994

Articles

A. Wang, J. G. Edwards, and **J. A. Davies** (*U.S.A.*) 459 Photooxidation of aqueous ammonia with titania-based heterogeneous catalysts

J. F. Muir, R. E. Hogan, Jr., R. D. Skocypec, and **R. Buck** (*U.S.A./Germany*) 467 Solar reforming of methane in a direct absorption catalytic reactor on a parabolic dish: I—Test and analysis

R. D. Skocypec, R. E. Hogan, Jr., and **J. F. Muir** (*U.S.A.*) 479 Solar reforming of methane in a direct absorption catalytic reactor on a parabolic dish: II—Modeling and analysis

K. Hinrichsen (*Germany*) 491 The Ångström formula with coefficients having a physical meaning

D. I. Milburn and **K. G. T. Hollands** (*Canada*) 497 Solar transmittance measurements using an integrating sphere with broad area irradiation

M. Dupont, B. Celestine, P. H. Nguyen, J. Merigoux, and **B. Brandon** (*Guadeloupe/France*) 509 Desiccant solar air conditioning in tropical climates: I—Dynamic experimental and numerical studies of silicagel and activated alumina

M. Dupont, B. Celestine, and **B. Beghin** (*Guadeloupe*) 519 Desiccant solar air conditioning in tropical climates: II—Field testing in Guadeloupe

S. M. Habali and **I. A. Saleh** (*Amman-Jordan*) 525 Design of stand-alone brackish water desalination wind energy system for Jordan

G. A. Bemporad and **H. Rubin** (*Italy/Israel*) 533 Analysis of the instabilities related to the multiselective injection and withdrawal procedures of the advanced solar pond

J. J. Delaunay, M. Rommel, and **J. Geisler** (*Germany*) 541 The importance of the sampling frequency in determining short-time-averaged irradiance and illuminance for rapidly changing cloud cover

A. E. Delsante and **J. W. Spencer** (*Australia*) 547 Calculation of the proportion of sky seen by windows with finite horizontal and vertical projections

553 *Books Received*

Index

I Volume 52, 1994—List of contents and author index

Reproduced with the permission of Pergamon Press Inc., by University Microfilms Inc. Duplication or resale without permission is prohibited.